

What is claimed is:

1. A lubricating system for an internal combustion engine, comprising:
a lubricating oil recovery oil passage through which lubricating oil dropping to and dwelling in a bottom portion of a crankcase after lubricating individual portions of the internal combustion engine is fed into a lubricating oil tank through an oil cooler by a recovery pump;
a lubricating oil supply oil passage through which said lubricating oil is supplied from said lubricating oil tank to said individual portions of said internal combustion engine needing lubrication and cooling through an oil filter by a supply pump; and
a branch passage branched from said lubricating oil recovery oil passage communicating from said oil cooler to said lubricating oil tank, said branch passage for supplying said lubricating oil to at least one of said individual portions of said internal combustion engine.
2. The lubricating system for an internal combustion engine according to claim 1, wherein a downstream end of said branch passage is in communication with a portion surrounding a combustion chamber of the internal combustion engine.
3. The lubricating system for an internal combustion engine according to claim 1, wherein a downstream end of said branch passage is in communication with a portion to be cooled of an AC generator provided on the internal combustion engine.

4. The lubricating system for an internal combustion engine according to claim 1, wherein said branch passage is a first branch passage, said lubricating system further comprising a second branch passage, said second branch passage being branched from said lubricating oil recovery oil passage and being in communication with the crankcase.

5. The lubricating system for an internal combustion engine according to claim 4, wherein a relief valve is interposed in said second branch passage, and when the lubricating oil pressure in said lubricating oil recovery oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said lubricating oil recovery oil passage to said crankcase through said second branch passage.

6. The lubricating system for an internal combustion engine according to claim 2, wherein said branch passage is a first branch passage, said lubricating system further comprising a second branch passage, said second branch passage being branched from said lubricating oil recovery oil passage and being in communication with the crankcase.

7. The lubricating system for an internal combustion engine according to claim 6, wherein a relief valve is interposed in said second branch passage, and when the lubricating oil pressure in said lubricating oil recovery oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said lubricating oil recovery oil passage to said crankcase through said second branch passage.

8. The lubricating system for an internal combustion engine according to claim 3, wherein said branch passage is a first branch passage, said lubricating system further comprising a second branch passage, said second branch passage being branched from said lubricating oil recovery oil passage and being in communication with the crankcase.

9. The lubricating system for an internal combustion engine according to claim 8, wherein a relief valve is interposed in said second branch passage, and when the lubricating oil pressure in said lubricating oil recovery oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said lubricating oil recovery oil passage to said crankcase through said second branch passage.

10. The lubricating system for an internal combustion engine according to claim 1, further comprising a supply oil branch passage, said second branch passage being branched from said lubricating oil supply oil passage and being in communication with the lubricating oil tank.

11. The lubricating system for an internal combustion engine according to claim 10, wherein a relief valve is interposed in said supply oil branch passage, and when the lubricating oil pressure in said lubricating oil supply oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said lubricating oil supply oil passage to said lubricating oil tank through said supply oil branch passage.

12. A lubricating system for an internal combustion engine, comprising:

a first oil passage, said first oil passage extending between a crankcase and an oil tank of the engine and including a recovery pump and an oil cooler therein, said recovery pump feeding lubricating oil from said crankcase through said first oil passage and into said oil tank via said oil cooler;

a second oil passage extending from said oil tank to individual portions of the internal combustion engine needing lubrication and cooling, said second oil passage including a supply pump and an oil filter therein, said supply pump feeding lubricating oil from said oil tank through said second oil passage to said individual portions of the internal combustion engine via said oil filter; and

a branch passage branched from said first oil passage, said branch passage extending to at least one of said individual portions of the internal combustion engine for supplying said lubricating oil thereto.

13. The lubricating system for an internal combustion engine according to claim 12, wherein a downstream end of said branch passage is in communication with a portion surrounding a combustion chamber of the internal combustion engine.

14. The lubricating system for an internal combustion engine according to claim 12, wherein a downstream end of said branch passage is in communication with a portion to be cooled of an AC generator provided on the internal combustion engine.

15. The lubricating system for an internal combustion engine according to claim 12, wherein said branch passage is branched from said first oil passage at a location between said oil cooler and said oil tank.

16. The lubricating system for an internal combustion engine according to claim 12, wherein said branch passage is a first branch passage, said lubricating system further comprising a second branch passage, said second branch passage being branched from said first oil passage and being in communication with the crankcase.

17. The lubricating system for an internal combustion engine according to claim 16, wherein a relief valve is interposed in said second branch passage, and when the lubricating oil pressure in said first oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said first oil passage to said crankcase through said second branch passage.

18. The lubricating system for an internal combustion engine according to claim 15, wherein said branch passage is a first branch passage, said lubricating system further comprising a second branch passage, said second branch passage being branched from said first oil passage and being in communication with the crankcase.

19. The lubricating system for an internal combustion engine according to claim 18, wherein a relief valve is interposed in said second branch passage, and when the lubricating oil pressure in said first oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said first oil passage to said crankcase through said second branch passage.

20. The lubricating system for an internal combustion engine according to claim 12, further comprising a supply oil branch passage, said second branch

passage being branched from said second oil passage and being in communication with said oil tank.

21. The lubricating system for an internal combustion engine according to claim 20, wherein a relief valve is interposed in said supply oil branch passage, and when the lubricating oil pressure in said second oil passage reaches or exceeds a predetermined setpoint pressure, the relief valve operates so that the lubricating oil is returned from said second oil passage to said oil tank through said supply oil branch passage.